



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,327	08/19/2003	Jean Khawand	CE11193J1210	4001
22917	7590	04/03/2008		
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196				
EXAMINER				
SORRELL, IRON J				
ART UNIT		PAPER NUMBER		
2182				
NOTIFICATION DATE		DELIVERY MODE		
04/03/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
AP1099@motorola.com

Office Action Summary

Application No.

10/643,327

Applicant(s)

KHAWAND ET AL.

Examiner

ERON J. SORRELL

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Examiner's Remarks

1. In view of the appeal brief filed on 1/23/08, PROSECUTION IS HEREBY REOPENED. New grounds of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims (asdf) are rejected under 35 U.S.C. 102(e) as being anticipated by Metayer et al. (U.S. Patent No. 6,757,786 hereinafter "Metayer").

4. Referring to apparatus claim 1 and method claim, Matayer teaches an electronic device (see figure 1), comprising:

a first processor (see item 2 in figure 1 and lines 28-40 in column 7);

a second processor coupled to the first processor (see item 1 in figure 1 and lines 28-40 in column 7);

shared memory coupled to the first and second processors, wherein the shared memory includes the transmit memories of both the first and second processors (see item 4 in figure 1 and lines 41-46 of column 7); and

wherein the first processor is a master processor that manages the shared memory and allocates a message buffer to the second processor based on a specific request from the second processor to send a message to the first processor, and wherein the first processor sends a message buffer pointer to the second processor that directs the second processor to the message buffer (see lines 7-24 of column 8).

5. Referring to method claim 15, Metayer a method for providing interprocessor communication between first and second processors using a shared memory that includes the transmit memories of the first and second processors (see items 2,1, and 4 respectively in figure 1), the first processor being a master processor assigned to manage the shared memory (see lines 28-40 in column 7) , the method comprising the steps of: at the first processor:

(a) allocating a memory buffer from the shared memory for use in loading a message to be sent to the second processor in response to a specific request from the second processor (see lines 7-24 of column 8);

(b) loading the message in the memory buffer (see lines 25-43 of column 8);

(c) sending a message buffer pointer to the second processor (see lines 25-43 of column 8); and at the second processor:

(d) using the message buffer pointer to locate the message in the shared memory (see lines 25-43 of column 8).

6. Referring to claims 2 and 3, Metayer teaches the first processor sends the message buffer pointer to the second processor in response to receiving an empty buffer request from the second processor and wherein the second processor fills the message buffer with a message after receiving the buffer pointer (see lines 25-35 of column 8, note the "references 16" are being construed as the message buffer pointer).

7. Referring to claims 7 and 8, Metayer teaches the buffers assigned to the second processor are in the shared memory and the second processor may use the buffers without requesting them from the first processor (see lines 36-44 of column 8).

8. Referring to claim 9, Metayer teaches when the second processor needs to send a message to the first processor it loads a starting address of the message in one of the plurality

Art Unit: 2181

of buffers assigned to the second processor (see lines 25-35 of column 8).

9. Referring to claim 18, Metayer teaches step (c) is performed by the first processor sending the starting address of the allocated memory buffer to a memory located in the second processor (see lines 25-35 of column 8).

10. Referring to claim 19, Metayer teaches the first processor sends an interrupt to the second processor once it has loaded the starting address of the allocated memory buffer in the memory located in the second processor (see lines 7-15 of column 8).

11. Claims 4-6, 12-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metayer in view of McKenney et al. (U.S. Patent No. 6,823,511 hereinafter "McKenney").

12. Referring to method claims 4-6 and apparatus claims 12-14, and apparatus claims 16 and 17, Metayer teaches the first processor reads the message from the shared memory after it has been written by the second processor and the first processor

releasing the message buffer after the message has been read (see lines 25-44 of column 8).

Metayer fails to teach the second processor passes the message buffer pointer to the first processor and the first processor reading the message from the buffer in response to receiving the message buffer pointer.

McKenney teaches, in an analogous system, returning a pointer from a second processor to a first processor that previously sent the pointer to the second processor for reading a message from the second processor to the first processor (see lines 40-45 of column 11).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Metayer with the above teachings of McKenney in order to provide proper synchronization between the processors by only allowing one processor at a time to access the shared memory (see lines 6-15 of column 2).

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Metayer in view of Ellsworth et al. (U.S. Patent No. 6,131,113 hereinafter "Ellsworth").

14. Referring to claim 10, Metayer teaches the device of claim 1 as shown above, however fails to teach the device is a radio communication device.

Ellsworth teaches a multiprocessor device with shared memory that is a radio communication device.

It would have been obvious to incorporate the teachings of Metayer into a radio communication device such as Ellsworth's. One of ordinary skill would have been motivated to make such modification to improve the data consistency of the radio communication device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERON J. SORRELL whose telephone number is (571)272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on 571-272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. J. S./
Examiner - PSA, Art Unit 2182

/Alford W. Kindred/
Supervisory Patent Examiner, Art Unit 2163